

FIG. 1

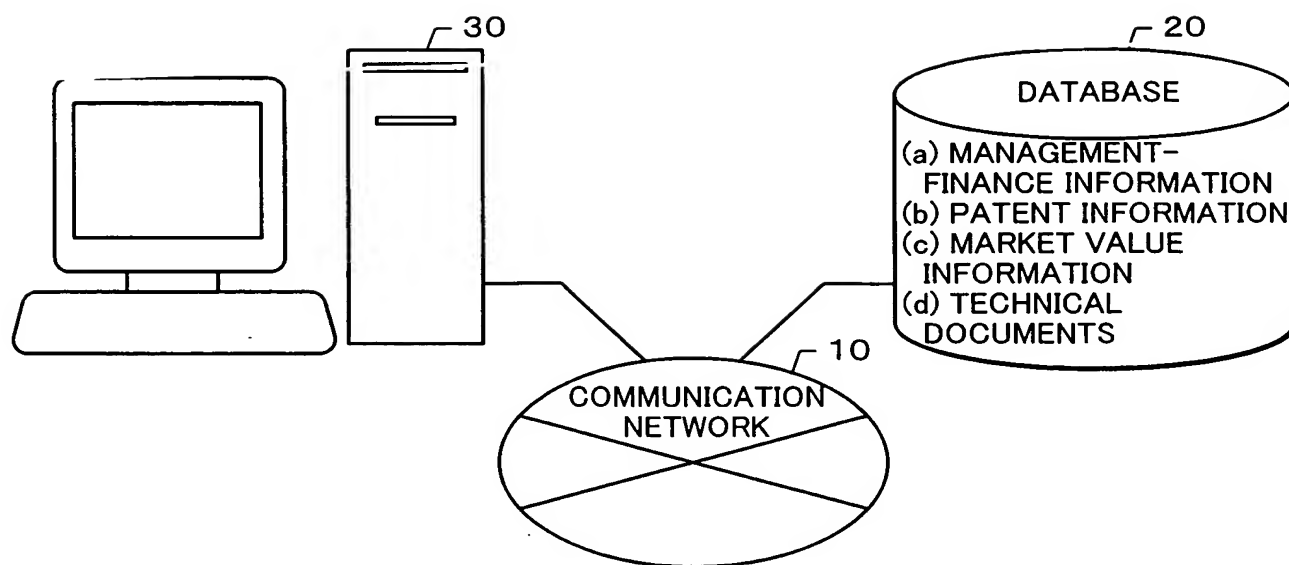


FIG. 2

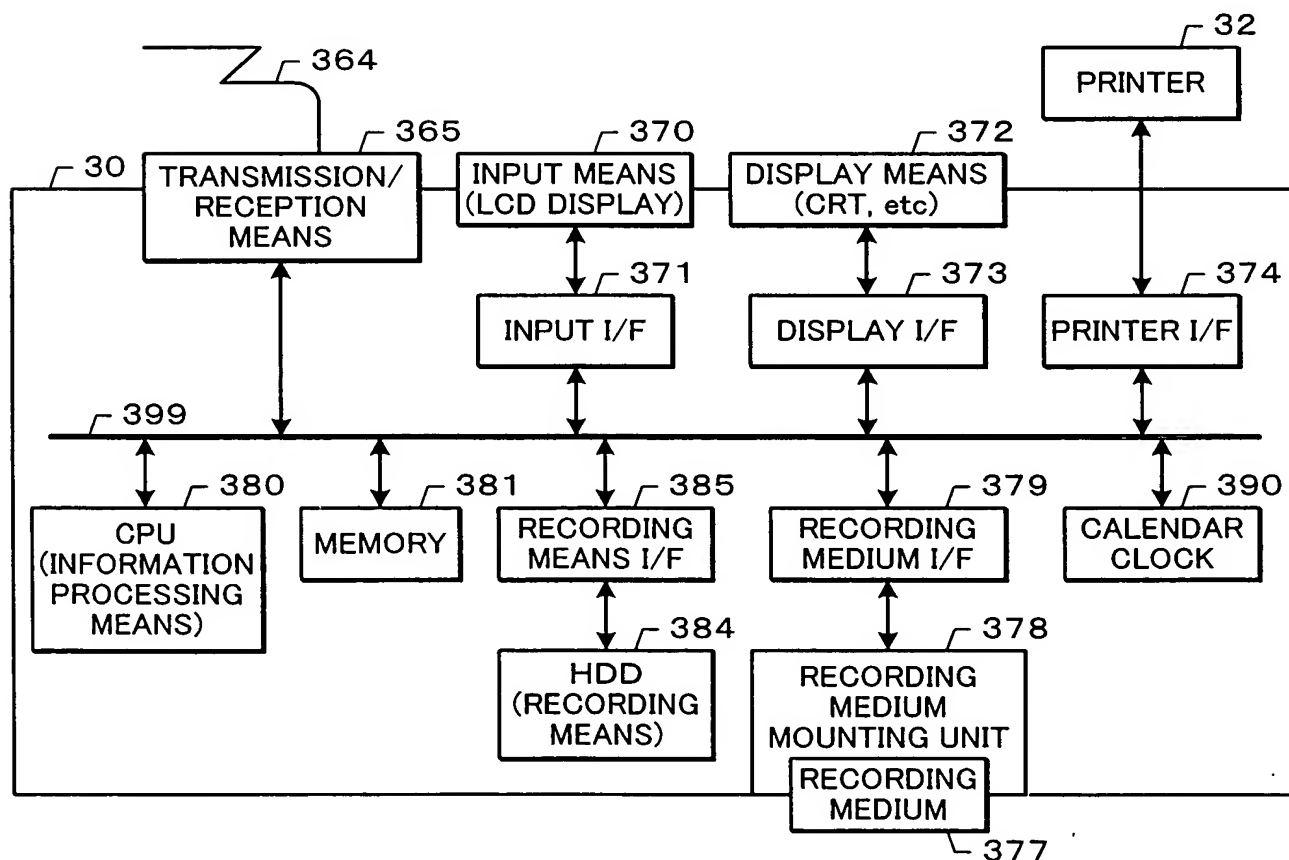


FIG. 3

## (a) MANAGEMENT-FINANCE INFORMATION

(A) Information on Size of Company	(B) Financial Information of Company		(C) Combined Information of Company
Number of employees	Sales volume	Total assets	Sales volume per employee
Number of officers	Sales profit	Tangible fixed assets	R&D cost per employee
Capital	Operating profit	Amount of capital investment	Sales profit per employee
Number of plants/offices	Gross operating profit	Depreciation costs	Operating profit per employee
Ground floor area	Sales profit ratio	Patent royalty income	Gross operating profit per employee
Total floor area	Operating profit ratio	Financial assets (liquid assets and liquid liabilities)	
Ownership ratio of premises	Gross operating profit ratio	Interests paid/discounts	
Ownership ratio of building	Total market value to total assets ratio	Long-term prime rate (long-term borrowing rate)	
Number of employees (consolidated basis)	Total market value to stockholders' equity ratio	Short-term prime rate	
Number of officers (consolidated basis)	Total market value to sales volume ratio	Interest on bonds	
Capital (consolidated basis)	Total market value to gross operating profit ratio	10-year government bond yield ratio	
Number of plants/offices (consolidated basis)	Total market value to operating profit ratio	Personnel costs, (including officers' compensation and labor costs)	
Ground floor area (consolidated basis)	Gross operating profit to total assets ratio	Welfare expenses	
Total floor area (consolidated basis)	Gross operating profit to stockholders' equity ratio	Capital stock	
Ownership ratio of premises (consolidated basis)	Operating profit to total assets ratio	Total number of outstanding shares	
Ownership ratio of building (consolidated basis)	Operating profit to Stockholders' equity ratio	Stock price (Nikkei Stock Average)	
	Stockholders' equity ratio	Taxes and public charges	
	Balance of total market value and stockholders' equity		
	R&D cost		
	R&D cost to sales volume ratio		
	R&D cost to operating profit ratio		
	R&D cost to gross operating profit ratio		

FIG. 4A

## (b) PATENT INFORMATION

(A) Application Related Matters	
Filing date	Number of filings
Application number	Number of request for examination
Title of the invention	Number of filings based on IPC
Inventors	Number of filings based on keywords
Applicants	Number of claims filed
Scope of claims	Years spent on examination requests
Abstract	Number of inventors
IPC	Number of applicants (number of joint applications)
FI	Number of domestic priority-claiming applications
F term	Number of domestic priority bases claimed in applications
Agents	Number of priority bases from foreign countries
Publication date	Number of applications in which an exception to loss of novelty is requested
Publication number	Number of applications in which examination is requested before laid-open
Existence of request for examination	Number of divisional applications
Date of request for examination	Number of withdrawn/abandoned applications
Priority date	Number of converted applications
Priority number	Number of expedited examinations
Date of publication of translations of PCT international application	Number of filings (in each country)
Number for publication of translations of PCT international application	Number of inventors in applications (in each country)
Date of domestic re-publication of PCT international application	Number of applicants in applications (in each country)
Number for domestic re-publication of PCT international application	Number of priority-claiming applications (in each country)
International filing date	Number of priority bases claimed in applications (in each country)
International application number	Number of divisional applications (in each country)
International publication date	
International publication number	
Designated countries	

FIG. 4B

## (b) PATENT INFORMATION

(B) Registration Related Matters	
Registration date	Number of registrations
Issue date of registration	Number of claims registered
Registration number	Number of expired patents after registration
Scheduled day of expiration of right	Years spent from application to registration
Date of publication of examined application	Patent registration rate
Publication number of examined application	Patent allowance rate
Annual maintenance fee payment status	Years spent from request for examination to registration
Number of final decisions for rejection	Number of applications in which preferential examination is conducted
Date of final decision for rejection	Number of rejections issued
Number of claims decided to be finally rejected	Number of amendments filed
Number of appeals against final decision for rejection	Number of amendments filed (for formalities)
number of abandoned/withdrawn applications after request for examination	Number of written oppositions filed
Number of abandoned/withdrawn claims after request for examination	Number of appeals and trials
Number of invalidation trials	Number of registrations for creating patent right
Appeal/trial number	Number of registrations for extending term of patent right
Date of decision to appeal/trial	Number of transferred patents
Number of claims demanded for invalidation trial	Number of registrations (in each country)
Number of appeals to dismissal of amendment or trials for correction	Years required for registration (in each country)
Number of oppositions	Years spent on examination (in each country)
Number of claims demanded for opposition	Number of rejections issued (in each country)
Inventors of registered patent	Number of amendments filed (in each country)
Number of inventors of registered patent	Number of amendments filed (for formalities) (in each country)
Applicants of registered patent	Number of oppositions filed (in each country)
References cited	Number of applications in which preferential examination is conducted
	Number of rejections issued

FIG. 5

## "PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

A: Business, Profit and Market Value Related Index (1)

Index Group	Index	Formula
(A) Investment	Facility Investment Amount	$\{(\text{Current Term Tangible Fixed Assets} - \text{Previous Term Tangible Fixed Assets})\} + (\text{Current Term Depreciation Cost})$
	R&D Cost	Total Amount of R&D Cost
	Investment Trend Index	$\text{Term-on-Term Ratio of } \{(\text{Facility Investment Amount}) + (\text{R\&D Cost})\}$
	Facility Investment Efficiency	$(\text{Value Added Amount})/(\text{Tangible Fixed Assets})$
(B) Management/Finance Analysis	Labor Productivity	$(\text{Value Added Amount})/(\text{Number of Employees})$
	Labor Equipment Ratio	$(\text{Tangible Fixed Assets})/(\text{Number of Employees})$
	Labor Distribution Share	$\{(\text{Personnel Expense to be Included in Selling Cost and Administrative Expenses}) + (\text{Labor Cost to be Included in Manufacturing Cost})/(\text{Value Added Amount})\} \times (\text{Value Added Amount Rate of Change}) - \{(\text{1} - \text{Labor Distribution Share (To Value Added)})\} \times (\text{Value Added Amount Rate of Change}) - \{(\text{Labor Distribution Share (To Value Added)})\} \times (\text{Value Added Amount Rate of Change})$
	Total Factor Productivity	$(\text{Depreciation Target Tangible Fixed Assets Rate of Change}) - \{(\text{Labor Distribution Share (To Value Added)})\} \times (\text{Number of Employees Rate of Change})$
	Cost-to-Sales Ratio	$(\text{Cost of Sales})/(\text{Sales Volume})$
	Cost of Sales-and-Administration Ratio to Sales	$(\text{Selling Cost and Administrative Expenses})/(\text{Sales Volume})$
	Interest Bearing Debt Ratio	$(\text{Interest Bearing Debt})/(\text{Total Assets})$
	Equity to Asset Ratio	$(\text{Equity Capital})/(\text{Total Assets})$
	Sales Volume	$(\text{Sales Volume})$
	Value Added Amount	$(\text{Operating Net Profit}) + (\text{Interest Paid and Discount}) + (\text{R\&D Cost}) + (\text{Depreciation Cost}) + (\text{Personnel Expense (including board members' remuneration)}) + (\text{Welfare Expense}) + (\text{Tax and Dues}) - (\text{Operating Net Profit}) = (\text{Operating Profit}) - (\text{Interest Paid and Discount})$
(C) Profit Related Items	Gross Operating Profit (GBP)	$(\text{Operating Profit}) + (\text{R\&D Cost})$
	Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA)	$(\text{Operating Profit}) + (\text{Depreciation Cost})$
	Operating Profit	$(\text{Operating Profit})$
	Operating Net Profit	$(\text{Operating Profit}) - (\text{Interest Paid and Discount})$
	Patent Royalty Income	$(\text{Patent Royalty Income (Including Royalty Income of Trademarks and Brands, etc.)})$
	ROA $\alpha$	$(\text{Value Added Amount}) + (\text{Patent Royalty Income})/(\text{Total Assets})$
	ROA $\beta$	$(\text{GBP}) + (\text{Patent Royalty Income})/(\text{Total Assets})$
	ROA $\gamma$	$(\text{EBITDA}) + (\text{Patent Royalty Income})/(\text{Total Assets})$
	ROA $\delta$	$(\text{Operating Profit}) + (\text{Patent Royalty Income})/(\text{Total Assets})$
	Earnings on Intellectual Assets (EOIA)	$(\text{GBP}) + (\text{Patent Royalty Income}) - \{(\text{Financial Assets}) \times (\text{Profit Ratio m})\} + \{(\text{Tangible Fixed Assets}) \times (\text{Profit Ratio f})\} \quad (\text{Profit Ratio m): Application of Short Term Prime Rate; (Profit Ratio f): Application of Long Term Prime Rate}$
	Return On Intellectual Assets (ROIA)	$(\text{Earnings on Intellectual Assets})/(\text{Total Assets})$

FIG. 6

"PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

A: Business, Profit and Market Value Related Index (2)

Index Group	Index	Formula
(D) Excess Profit Analysis	Excess Value Added Amount	$\text{Sales Volume} \times \{(\text{Sales Volume Value Added Ratio}) - (\text{Industry Average Sales Volume Value Added Ratio})\}$
	Excess GBP	$\text{Sales Volume} \times \{(\text{Sales Volume GBP Ratio}) - (\text{Industry Average Sales Volume GBP Ratio})\}$
	Excess EBITDA	$\text{Sales Volume} \times \{(\text{Sales Volume EBITDA Ratio}) - (\text{Industry Average Sales Volume EBITDA Ratio})\}$
	Excess Operating Profit	$\text{Sales Volume} \times \{(\text{Operating Profit Ratio (To Sales)}) - (\text{Industry Average Operating Profit Ratio (To Sales)})\}$
	Excess ROA $\alpha$	$(\text{ROA } \alpha) - (\text{Industry Average ROA } \alpha)$
	Excess ROA $\beta$	$(\text{ROA } \beta) - (\text{Industry Average ROA } \beta)$
	Excess ROA $\gamma$	$(\text{ROA } \gamma) - (\text{Industry Average ROA } \gamma)$
	Excess ROA $\delta$	$(\text{ROA } \delta) - (\text{Industry Average ROA } \delta)$
(M) Market Evaluation Related Items	Excess Earnings on Intellectual Assets (EXEOIA)	$(\text{Net Assets}) \times \{(\text{Ratio of Earnings on Intellectual Assets}) - (\text{Industry Average of Ratio of Earnings on Intellectual Assets})\}$
	MVA	$(\text{Value of Stock}) - (\text{Shareholders' Equity}) \quad (\text{Value of Stock}) = (\text{Total Number of Outstanding Stock}) \times (\text{Stock Price})$
	PBR	$(\text{Value of Stock}) / (\text{Equity Capital})$
	Expected Intellectual Property Profit	$\{(\text{Fixed Liabilities}) \times (\text{Profit Ratio a}) + (\text{Value of Stock}) \times (\text{Profit Ratio p})\} - \{(\text{Financial Assets}) \times (\text{Profit Ratio m}) + (\text{Tangible Fixed Assets}) \times (\text{Profit Ratio f})\} \quad (\text{Profit Ratio a}): (\text{Weighted Average of Long Term Prime Rate and Bond Rate}) \times (1 - \text{Corporate Tax}) \quad (\text{Profit Ratio p}): (\text{Calculated Based on Capital Asset Pricing Model (CAPM). Yield on Long Term 10-Year Government Bonds, Stock Investment Profit Ratio, } \beta \text{ Value were used; } (\text{Profit Ratio m}): \text{Application of Short Term Prime Rate (Profit Ratio f): Application of Long Term Prime Rate}$
(PE) Patent Profitability Related Items	Patent Profitability $\alpha$	$\{(\text{GBP}) + (\text{Patent Royalty Income})\} / (\text{Total Number of Effective Patents})$
	Patent Profitability $\beta$	$\{(\text{Excess Value Added}) + (\text{Patent Royalty Income})\} / (\text{Total Number of Effective Patents})$
	Patent Profitability $\gamma$	$\{(\text{Excess GBP}) + (\text{Patent Royalty Income})\} / (\text{Total Number of Effective Patents})$
	Patent Profitability $\delta$	$(\text{Excess Earnings on Intellectual Assets (EXEOIA)}) / (\text{Total Number of Effective Patents})$

FIG. 7

## "PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

## B: R&amp;D and Patent Related Index (1)

Index Group	Index	Formula
(R) R&D Related Items	R&D Cost Ratio $\alpha$	$(R\&D\ Cost)/(Sales\ Volume)$
	R&D Cost Ratio $\beta$	$(R\&D\ Cost)/(Value\ Added\ Amount)$
	R&D Cost Ratio $\gamma$	$(R\&D\ Cost)/(GBP)$
	R&D Cost Ratio $\delta$	$(R\&D\ Cost)/(Total\ Assets)$
	Number of Inventors	(Calculated Based on "Inventor" Column of Laid-Open Publications)
	Ratio of Inventors	$(Number\ of\ Inventors)/(Number\ of\ Employees)$
	R&D Cost per Inventor	$(R\&D\ Cost)/(Number\ of\ Inventors)$
(PA) Patent Application Related Items	Number of Patent Applications	(Joint Application is Recorded as One Application)
	Number of Claims Filed	(Sum of Number of Claims of Laid-Open Publications)
	Number of Claims per Patent Application	$(Number\ of\ Claims\ Filed)/(Number\ of\ Patent\ Applications)$
	Number of application per Inventor	$(Number\ of\ Patent\ Applications\ (Other\ Than\ Joint\ Applications))/(Number\ of\ Inventors)$
	Number of Claims per Inventor (Patent Application)	$(Number\ of\ Claims\ Filed\ (Other\ Than\ Joint\ Applications))/(Number\ of\ Inventors)$
	Number of Joint Applications	(Number of Joint Applications Among Patent Applications Filed)
	Joint Filing Ratio	$(Number\ of\ Joint\ Applications)/(Number\ of\ Patent\ Applications)$
(PB) Examination Request Related Items	Number of Applicants in Joint Patent Application Stock	$(Number\ of\ Joint\ Applicants\ in\ Joint\ Applications)$
	Number of Examination Requests Years to Examination Request (Average)	$(Cumulative\ Number\ of\ Patent\ Applications)$
	Examination Request Ratio	$(Number\ of\ Examination\ Requests\ Filed)$
	Cumulative Number of Examination Requests	$\{ \sum (Date\ of\ Examination\ Request - Filing\ Date) \} / (Number\ of\ Examination\ Requests) \times (Annual\ Number\ of\ Days)$
		$(Examination\ Request\ Ratio\ Pertaining\ to\ Number\ of\ Patent\ Applications\ of\ Each\ Year)$
		$(Cumulative\ Number\ of\ Examination\ Requests)$

FIG. 8

## "PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

## B: R&amp;D and Patent Related Index (2)

Index Group	Index	Formula
(PT) Patent Acquisition (Registration) Related Items	Number of Patents Granted	(Number of Patents Granted)
	Number of Claims Registered	(Number of "Claims" in Registered Gazette)
	Years to Patent Granted (Average)	$[(\sum (\text{Patent Registration Date} - \text{Patent Filing Date})) / ((\text{Number of Patents Granted}) \times (\text{Annual Number of Days}))]$
	Patent Granted Ratio to Number of Applications	(Number of Patents Granted Each Year) / (Number of Patent Applications Filed Each Year)
	Patent Granted Stock	(Patent Granted Stock at End of Each Year)
	Patent Granted Ratio to Number of Examination Requests	(Number of Patents Granted Each Year) / (Number of Examination Requests Filed Each Year)
	Patent Granted Stock Ratio to Examination Request Stock	(Patent Granted Stock) / (Cumulative Number of Examination Requests)
	Number of Effective Patents Granted	(Number of Patents Granted Each Year) - (Number of Patents Invalidated Among Patent Registrations Each Year)
	Patent Application Productivity	(Number of Claims of Patent Applications in a year) / (R&D Cost in a previous year)
	Examination Request Productivity	Correction of (Patent Application Productivity) . (Patent Application Productivity) $\times$ (Estimated Examination Request Ratio) (Estimated Examination Request Ratio: Sought Based on Number of Examination Requests for Previous Applications in which the term for Examination Request is expired.)
(PP) Patent Productivity	Patent Granted Productivity	Correction of (Patent Application Productivity) . (Patent Application Productivity) $\times$ (Estimated Registration Ratio) (Estimated Registration Ratio: Sought Based on Number of Registrations of Previous Applications, Lapsed Years, Average Required Years to Patent Granted)
	Total Number of Effective Patents	(Patent Granted Stock) - (Patent Invalidation Stock)
	Patent Granted Renewal Ratio	(Total Number of Effective Patents) / (Patent Granted Stock)
(PS) Patent Stock Related Items	Years to Renewal Patent Granted Expiration (Average)	$[(\sum (\text{Scheduled Invalidation Date of Each Patent of the Total Number of Effective Patents} - \text{Year End})) / ((\text{Total Number of Effective Patents}) \times (\text{Annual Number of Days}))]$
	Patent Stock Index	(Total Number of Effective Patents) $\times$ (Years to Renewal Patent Granted Expiration (Average))
	Total Patent Assets	$[(\text{R\&D Cost}) / (\text{Number of Patents Granted})] \times (\text{Total Number of Effective Patents})$



FIG. 9

## "PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

## C: Patent Portfolio Related Index

Index Group	Index	Formula
(PAP) Patent Application Portfolio analysis	Patent Application Portfolio analysis	(Power of Number of Claims Share Per Technical Field) (Share: Share of Each Technical Field in an Enterprise or Share of each Enterprise in All Enterprises in a Technical Field)
	Patent Diversification Index (PDI)	$[1 - \sum (\text{Share of Each Technical Field in an Enterprise})^2]$
	Patent Competitive Position Index (PCPI)	$\sum [\sum (\text{SEI Index Per Technical Field})] \times (\text{Share of Each Company Per Technical Field}) \times (1 + \text{Excess Growth Rate})$
	Average Patent Competitive Position Index (Average PCPI)	(Patent Competitive Position Index (PCPI))/(Number of Technical Fields covered by Company's Patent Applications (Average in 3 Years))
(PKA) Characteristic Keywords	Characteristic Keywords	(Selected Keywords Having an Appearance Frequency That is Not Large in All Patent Publications and That is Large in Patent Publications of the Same Company)
	Number of Characteristic Keywords	(Representation of Character of an Enterprise by the Number of Keywords under a Constant Condition of Selecting the Characteristic Keywords)
(PSI) Patent Similarity Analysis	Patent Similarity Index	(Ratio of Patent Publications Having the Keyword of the Subject Patent Publication within a Population)
	Patent Similarity Index to the Same Company (PSIself)	(Patent Similarity Index (PSI) When the Population is the Same Company's Patent Publications:)
	Patent Similarity Index to All Companies (PSIall)	(Patent Similarity Index (PSI) When the Population is All Patent Publications Including the Other Companies' Patent Publications)
	Normal Patent Publication	(Patent Publications Having Significantly Large PSIall)
	Exceptional Patent Publication	(Patent Publications Having Significantly Small PSIall)

FIG. 10

PATENT ACQUISITION (REGISTRATION) RELATED INDEXES  
(ELECTRICAL EQUIPMENT)

NAME OF ENTERPRISE	NUMBER OF PATENT REGISTRATIONS (PTRD)	NUMBER OF CLAIMS REGISTERED (PTCL)	CUMULATIVE NUMBER OF PATENT REGISTRATIONS (PTSP)	CUMULATIVE PATENT REGISTRATION RATIO (PTSR)	NUMBER OF EFFECTIVE PATENTS (PTEF)	EFFECTIVE PATENT REMAINING RATIO (PTEP)
MS	4,806	22,766	5,606	6.0	4,794	99.8
SN	2,337	8,472	379	0.6	2,334	99.9
HT	2,642	15,386	2,205	3.2	2,636	99.8
TS	2,849	12,672	1,830	2.6	2,845	99.9
MB	1,677	10,287	1,964	4.5	1,674	99.8
FJ	1,618	9,206	730	2.5	1,614	99.8
NC	3,688	22,321	20,519	40.2	3,679	99.8
SY	1,913	5,680	2,582	11.0	1,908	99.8
SH	1,537	7,017	1,925	12.6	1,533	99.7
PI	156	421	38	1.2	154	98.7

FIG. 11

PATENT ACQUISITION (REGISTRATION) RELATED INDEXES  
(CHEMICAL)

NAME OF ENTERPRISE	NUMBER OF PATENT REGISTRATIONS (PTRD)	NUMBER OF CLAIMS REGISTERED (PTCL)	CUMULATIVE NUMBER OF PATENT REGISTRATIONS (PTSP)	CUMULATIVE PATENT REGISTRATION RATIO (PTSR)	NUMBER OF EFFECTIVE PATENTS (PTEF)	EFFECTIVE PATENT REMAINING RATIO (PTEP)
MK	435	1,459	135	1.2	432	99.3
MT	518	2,257	252	3.0	516	99.6
SE	390	897	233	1.3	387	99.4
SU	288	1,277	155	1.7	286	99.4
KF	141	672	97	2.1	138	98.1
AK	336	1,059	198	2.4	333	99.0
HK	122	712	69	1.0	122	100
DN	171	837	33	0.8	169	99.2
KO	479	2,081	767	8.3	476	99.3
SK	302	947	629	14.6	299	98.3

FIG. 12

AVERAGE YEARS REQUIRED FOR REGISTRATION (PTMY)  
(ELECTRICAL EQUIPMENT)

NAME OF ENTERPRISE	1999	2000	2001	2002
MS	7.2	6.9	6.8	6.6
SN	9.2	9.0	9.0	8.9
HT	8.2	8.0	7.9	7.5
TS	8.0	8.1	8.0	7.5
MB	6.8	6.8	6.8	6.7
FJ	8.3	8.4	8.1	7.7
NC	5.0	4.6	4.2	3.9
SY	6.9	6.8	6.8	6.6
SH	6.7	6.7	6.5	6.1
PI	9.1	9.1	8.9	8.7

FIG. 13

AVERAGE YEARS REQUIRED FOR REGISTRATION (PTMY)  
(CHEMICAL)

NAME OF ENTERPRISE	1999	2000	2001	2002
MK	8.5	8.8	8.7	8.5
MT	8.1	8.2	8.5	8.3
SE	7.5	7.8	7.9	7.6
SU	8.3	8.2	8.4	8.2
KF	6.9	7.9	8.7	8.6
AK	8.1	8.1	7.7	7.6
HK	7.9	7.8	7.6	7.4
DN	9.0	9.1	9.0	8.9
KO	6.1	6.2	6.9	6.5
SK	5.9	6.0	6.5	6.5

FIG. 14

**PATENT PRODUCTIVITY INDEXES  
(ELECTRICAL EQUIPMENT)**

NAME OF ENTERPRISE	PATENT APPLICATION PRODUCTIVITY (PPFI)	EXAMINATION REQUEST PRODUCTIVITY (PPEX)	PATENT ACQUISITION PRODUCTIVITY (PPPD)
MS	761.1	442.9	152.6
SN	267.4	114.7	49.6
HT	178.2	55.2	28.9
TS	229.0	86.1	28.6
MB	302.7	173.8	44.7
FJ	59.7	28.5	6.6
NC	154.4	253.9	94.6
SY	262.1	176.8	50.9
SH	300.0	187.6	94.1
PI	743.3	567.2	104.8

NUMBER OF CLAIMS IS USED FOR PATENT PRODUCTIVITY INDEXES

FIG. 15

**PATENT PRODUCTIVITY INDEXES  
(CHEMICAL)**

NAME OF ENTERPRISE	PATENT APPLICATION PRODUCTIVITY (PPFI)	EXAMINATION REQUEST PRODUCTIVITY (PPEX)	PATENT ACQUISITION PRODUCTIVITY (PPPD)
MK	248.3	153.3	26.2
MT	208.6	123.8	25.4
SE	244.8	87.9	7.6
SU	218.9	132.4	27.8
KF	419.4	178.9	16.4
AK	131.0	56.3	8.5
HK	312.8	122.2	11.9
DN	1036.5	490.9	68.5
KO	117.8	59.4	17.2
SK	184.4	131.0	31.6

NUMBER OF CLAIMS IS USED FOR PATENT PRODUCTIVITY INDEXES

FIG. 16

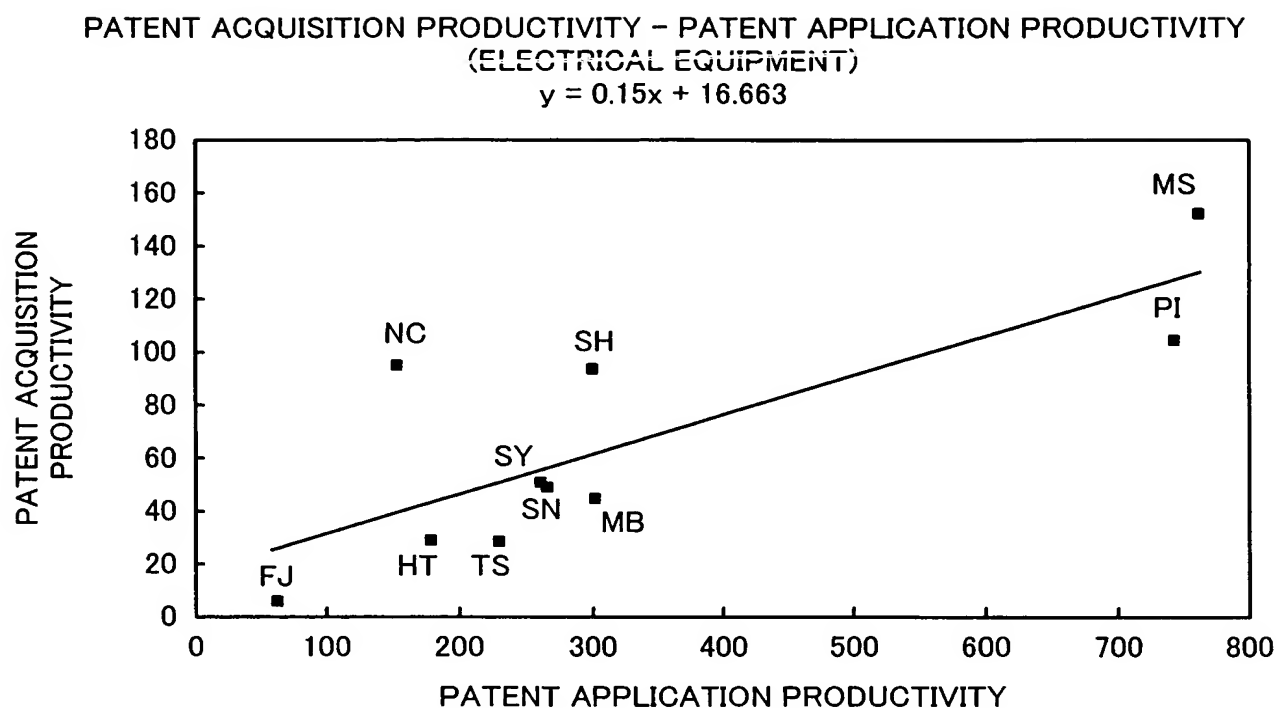


FIG. 17

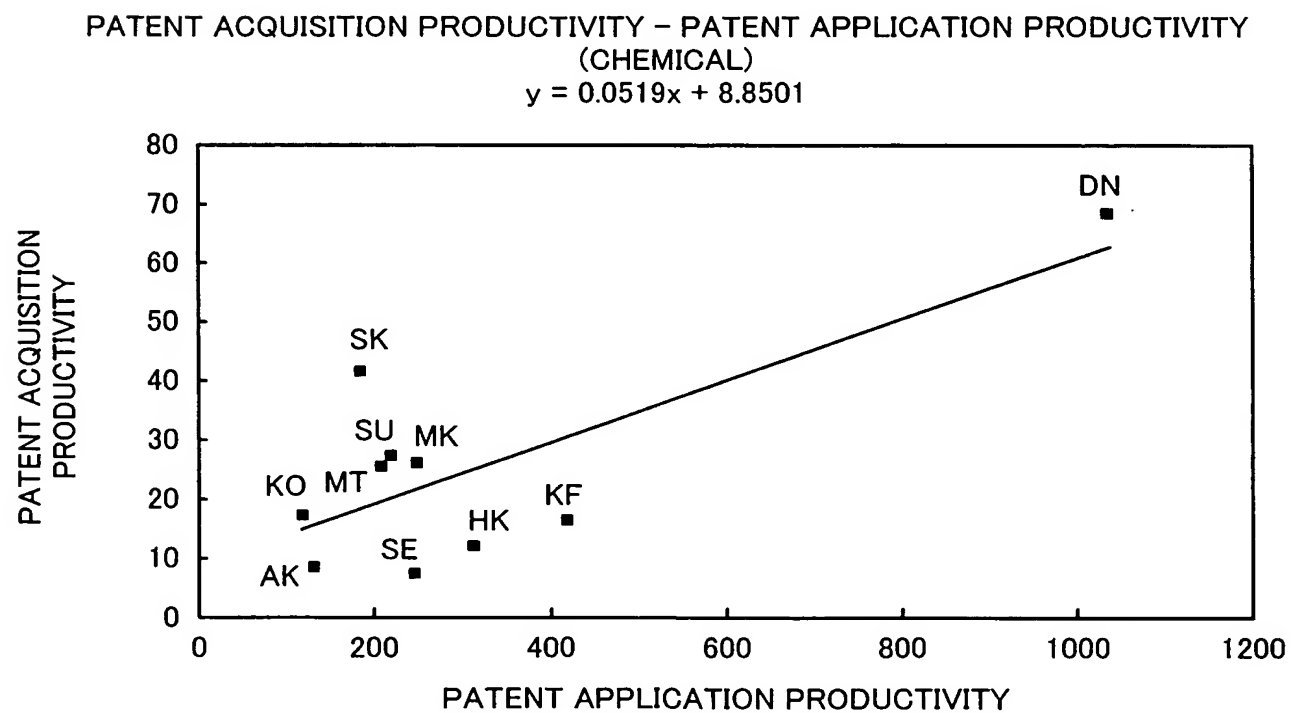


FIG. 18

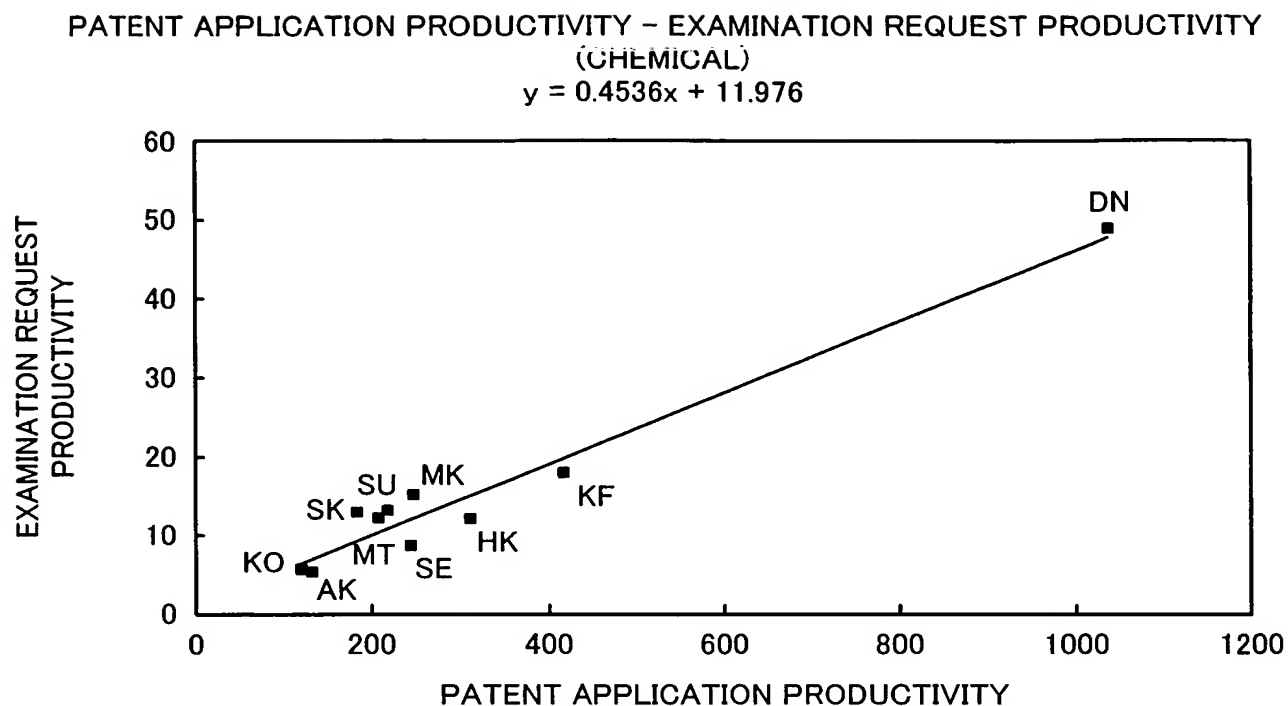


FIG. 19

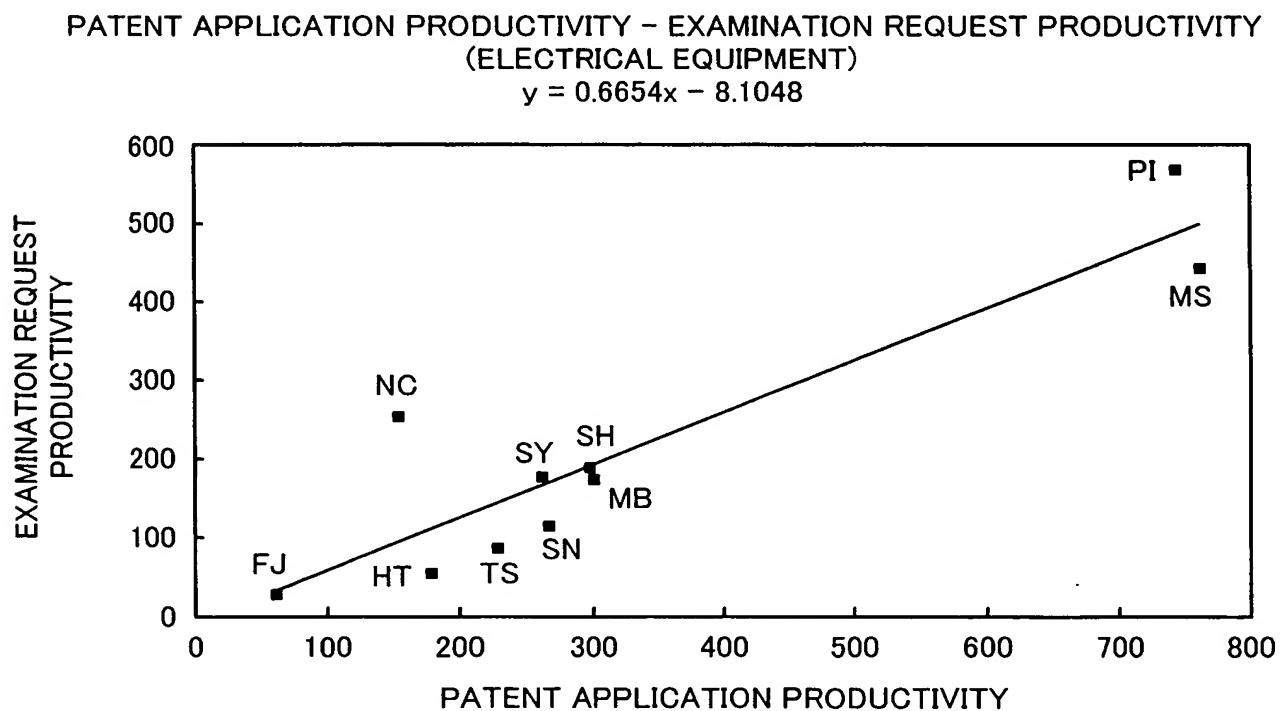


FIG. 20

PATENT ACQUISITION PRODUCTIVITY - EXAMINATION REQUEST PRODUCTIVITY  
(CHEMICAL)

$$y = 0.128x + 5.3914$$

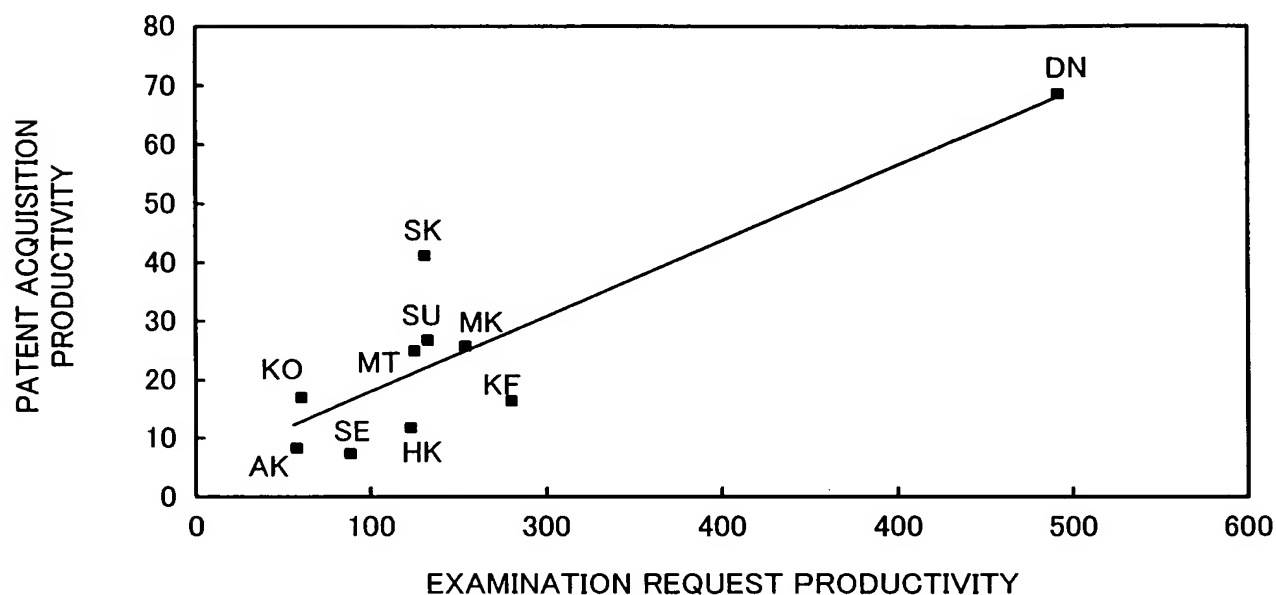


FIG. 21

PATENT ACQUISITION PRODUCTIVITY - EXAMINATION REQUEST PRODUCTIVITY  
(ELECTRICAL EQUIPMENT)

$$y = 0.2188x + 19.88$$

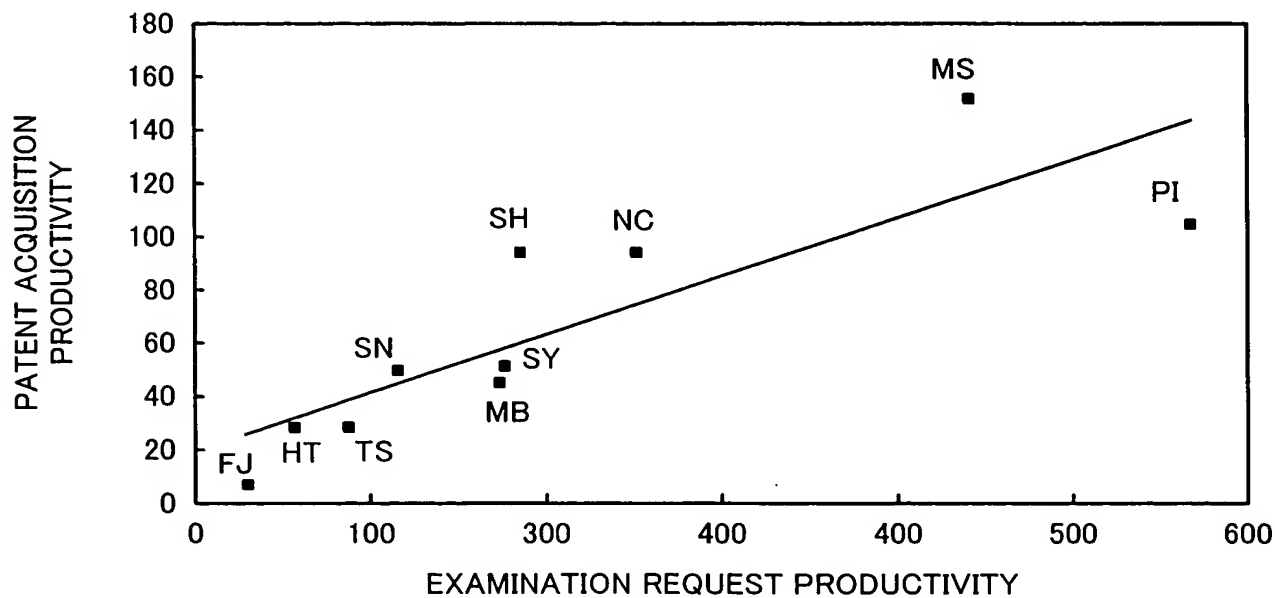


FIG. 22

## CUMULATIVE NUMBER OF REGISTRATIONS AND CUMULATIVE REGISTRATION RATIO

YEARS ELAPSED	CUMULATIVE NUMBER OF REGISTRATIONS ON APPLICATIONS IN 1994	CUMULATIVE NUMBER OF REGISTRATIONS ON APPLICATIONS IN 1995	CUMULATIVE NUMBER OF REGISTRATIONS ON APPLICATIONS IN 1996	TOTAL OF CUMULATIVE NUMBER OF PATENT REGISTRATIONS (PTSP)	CUMULATIVE PATENT REGISTRATION RATIO (%) (PTSR)	CUMULATIVE PATENT REGISTRATION RATIO (ln(PTSR))
0	0	0	0	0	0.00%	
1	1	0	0	1	0.01%	-4.61
2	16	8	22	46	0.46%	-0.78
3	55	51	52	158	1.58%	0.46
4	139	103	81	323	3.23%	1.17
5	210	235	210	655	6.55%	1.88
6	285	298	286	869	8.69%	2.16
7	423	381	378	1,182	11.82%	2.47
8	523	451	-	-	-	-
9	666	-	-	-	-	-
NUMBER OF APPLICATIONS	3,500	3,000	3,500	10,000		



FIG. 23

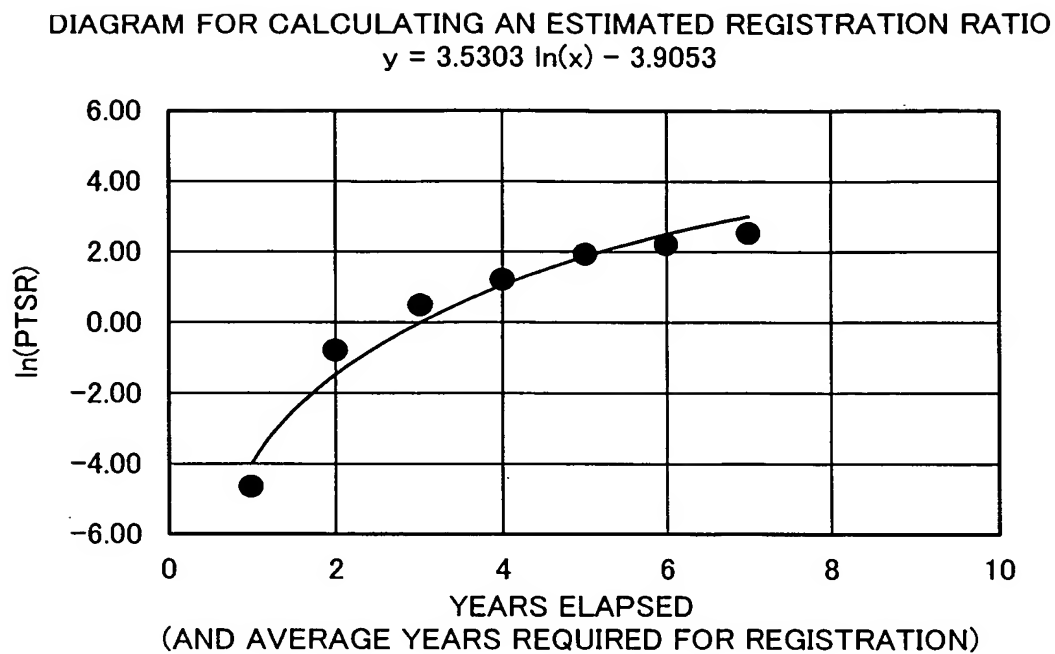


FIG. 24

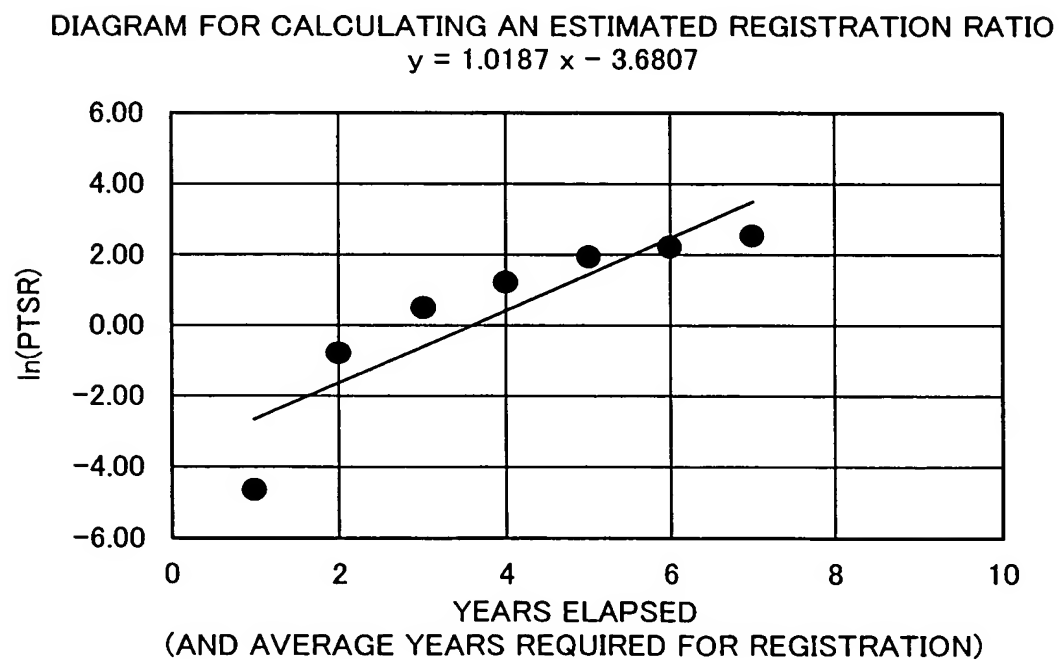


FIG. 25

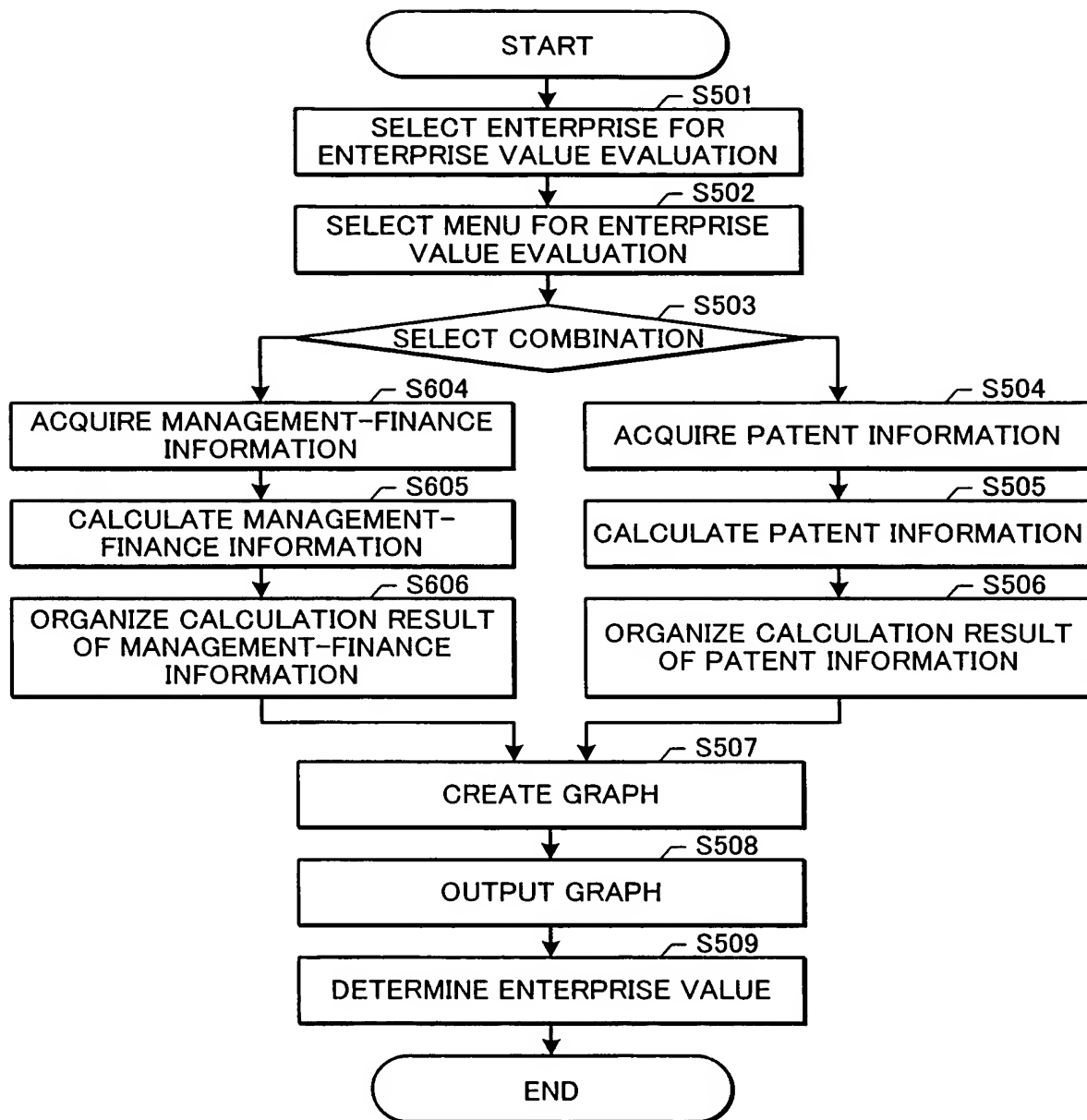


FIG. 26

ENTERPRISE VALUE EVALUATION MENU (1)

SELECT INDEXES IN THE WINDOWS BELOW

**BUSINESS, PROFIT AND  
MARKET VALUE**

(A) Investment index	<input type="checkbox"/>
(B) Management-finance analysis index	<input type="checkbox"/>
(C) Profit related index	<input type="checkbox"/>
(D) Excess profit analysis index	<input type="checkbox"/>
(M) Market evaluation related index	<input type="checkbox"/>
(PE) Patent profitability index	<input type="checkbox"/>

**R&D AND PATENT**

(R) Research and development related index	<input type="checkbox"/>
(PA) Patent application related index	<input type="checkbox"/>
(PB) Examination request related index	<input type="checkbox"/>
(PT) Patent acquisition (registration) related index	<input checked="" type="checkbox"/>
(PP) Patent productivity index	<input type="checkbox"/>
(PS) Patent stock related index	<input type="checkbox"/>

**PATENT PORTFOLIO**

(PAP) Patent application portfolio analysis	<input type="checkbox"/>
(PKA) Characteristic keyword list	<input type="checkbox"/>
(PSI) Patent similarity analysis	<input type="checkbox"/>

BACK
SET

FIG. 27

ENTERPRISE VALUE EVALUATION MENU (3)			
SELECT INDEXES IN THE WINDOWS BELOW			
BUSINESS, PROFIT AND MARKET VALUE		R&D AND PATENT	PATENT PORTFOLIO
<input type="checkbox"/> (A) Investment index	<input type="checkbox"/> (R) Research and development related index	<input type="checkbox"/> (PAP) Patent application portfolio analysis	<input type="checkbox"/>
<input type="checkbox"/> (B) Management-finance analysis index	<input type="checkbox"/> (PA) Patent application related index	<input type="checkbox"/> (PKA) Characteristic keyword list	<input type="checkbox"/>
<input type="checkbox"/> (C) Profit related index	<input type="checkbox"/> (PB) Examination request related index	<input type="checkbox"/> (PSI) Patent similarity analysis	<input type="checkbox"/>
<input type="checkbox"/> (D) Excess profit analysis index	<input type="checkbox"/> (PI) Patent acquisition (registration) related index	<input checked="" type="checkbox"/> Number of patent registrations	
<input type="checkbox"/> (M) Market evaluation related index	<input type="checkbox"/> (PP) Patent productivity index	<input type="checkbox"/> Number of claims registered	
<input type="checkbox"/> (PE) Patent profitability index	<input type="checkbox"/> (PS) Patent stock related index	<input type="checkbox"/> Average years required for registration	
		<input type="checkbox"/> Patent registration ratio	
		<input type="checkbox"/> Cumulative number of patent registrations	
		<input type="checkbox"/> Patent allowance ratio	
		<input type="checkbox"/> Cumulative patent allowance ratio	
		<input type="checkbox"/> Number of effective patents	

BACK
SET

FIG. 28

ENTERPRISE VALUE EVALUATION MENU (1)

SELECT INDEXES IN THE WINDOWS BELOW

**BUSINESS, PROFIT AND  
MARKET VALUE**

(A) Investment index	<input type="checkbox"/>
(B) Management-finance analysis index	<input type="checkbox"/>
(C) Profit related index	<input type="checkbox"/>
(D) Excess profit analysis index	<input type="checkbox"/>
(M) Market evaluation related index	<input type="checkbox"/>
(PE) Patent profitability index	<input type="checkbox"/>

**R&D AND PATENT**

(R) Research and development related index	<input type="checkbox"/>
(PA) Patent application related index	<input type="checkbox"/>
(PB) Examination request related index	<input type="checkbox"/>
(PT) Patent acquisition (registration) related index	<input type="checkbox"/>
(PP) Patent productivity index	<input type="checkbox"/>
(PS) Patent stock related index	<input checked="" type="checkbox"/>

**PATENT PORTFOLIO**

(PAP) Patent application portfolio analysis	<input type="checkbox"/>
(PKA) Characteristic keyword list	<input type="checkbox"/>
(PSI) Patent similarity analysis	<input type="checkbox"/>

BACK
SET

FIG. 29

ENTERPRISE VALUE EVALUATION MENU (3)

SELECT INDEXES IN THE WINDOWS BELOW

**BUSINESS, PROFIT AND  
MARKET VALUE**

(A) Investment index	<input type="checkbox"/>
(B) Management-finance analysis index	<input type="checkbox"/>
(C) Profit related index	<input type="checkbox"/>
(D) Excess profit analysis index	<input type="checkbox"/>
(M) Market evaluation related index	<input type="checkbox"/>
(PE) Patent profitability index	<input type="checkbox"/>

**R&D AND PATENT**

(R) Research and development related index	<input type="checkbox"/>
(PA) Patent application related index	<input type="checkbox"/>
(PB) Examination request related index	<input type="checkbox"/>
(PT) Patent acquisition (registration) related index	<input type="checkbox"/>
(PP) Patent productivity index	<input type="checkbox"/>
(PS) Patent stock related index	<input type="checkbox"/>

**PATENT PORTFOLIO**

(PAP) Patent application portfolio analysis	<input type="checkbox"/>
(PKA) Characteristic keyword list	<input type="checkbox"/>
(PSI) Patent similarity analysis	<input type="checkbox"/>

BACK
SET

<input type="checkbox"/> Total number of effective patents
<input type="checkbox"/> Total effective patent remaining ratio
<input type="checkbox"/> Average remaining years of total effective patent
<input checked="" type="checkbox"/> Patent stock index

FIG. 30

ENTERPRISE VALUE EVALUATION MENU (1)		
SELECT INDEXES IN THE WINDOWS BELOW		
BUSINESS, PROFIT AND MARKET VALUE	R&D AND PATENT	PATENT PORTFOLIO
(A) Investment index <input type="checkbox"/>	(R) Research and development related index <input type="checkbox"/>	(PAP) Patent application portfolio analysis <input type="checkbox"/>
(B) Management-finance analysis index <input type="checkbox"/>	(PA) Patent application related index <input type="checkbox"/>	(PKA) Characteristic keyword list <input type="checkbox"/>
(C) Profit related index <input checked="" type="checkbox"/>	(PB) Examination request related index <input type="checkbox"/>	(PSI) Patent similarity analysis <input type="checkbox"/>
(D) Excess profit analysis index <input type="checkbox"/>	(PT) Patent acquisition (registration) related index <input type="checkbox"/>	
(M) Market evaluation related index <input type="checkbox"/>	(PP) Patent productivity index <input type="checkbox"/>	
(PE) Patent profitability index <input type="checkbox"/>	(PS) Patent stock related index <input type="checkbox"/>	

FIG. 31

ENTERPRISE VALUE EVALUATION MENU (2)

BACK

SET

SELECT INDEXES IN THE WINDOWS BELOW

BUSINESS, PROFIT AND  
MARKET VALUE

☐

(A) Investment index

☐

(B) Management-finance  
analysis index

☒

(C) Profit related index

☐

(D) Excess profit analysis  
index

☐

(M) Market evaluation  
related index

☐

(PE) Patent profitability  
index

☐

(R) Research and  
development related index

☐

(PA) Patent application  
related index

☒

Sales volume

☐

Value added amount

☐

GBP

☐

EBITDA

☐

Operating profit

☐

Net operating profit

☐

Patent royalty income

☐

ROA.  $\alpha$

☐

ROA.  $\beta$

☐

ROA.  $\gamma$

☐

ROA.  $\delta$

☐

EOIA

☐

ROIA

R&D AND PATENT

☐

(PAP) Patent application  
portfolio analysis

☐

(PKA) Characteristic  
keyword list

☐

(PSI) Patent similarity  
analysis

PATENT PORTFOLIO



FIG. 32

**ENTERPRISE VALUE EVALUATION  
INPUT CONDITION SETTING (1)**

SELECT CONDITIONS IN THE WINDOWS BELLOW

BACK  
SET

**TARGET DOCUMENT**

Unexamined patents	<input checked="" type="checkbox"/>
Registered patents	<input checked="" type="checkbox"/>
Utility models	<input type="checkbox"/>
Academic documents	<input type="checkbox"/>

**DATA READ**

Internal DB1	<input checked="" type="checkbox"/>
Internal DB2	<input type="checkbox"/>
JPO IPDL	<input type="checkbox"/>
PATOLIS	<input type="checkbox"/>
Other commercially available DB1	<input type="checkbox"/>
Other commercially available DB2	<input type="checkbox"/>
FD	<input type="checkbox"/>
CD	<input type="checkbox"/>
MO	<input type="checkbox"/>
DVD	<input type="checkbox"/>
Others	<input type="checkbox"/>

FIG. 33

**ENTERPRISE VALUE EVALUATION  
INPUT CONDITION SETTING (2)**

SELECT CONDITIONS IN THE WINDOWS BELLOW

BACK  
SET

**TARGET**

All industries		
Industry	Food	<input type="checkbox"/>
Enterprise	Ceramic	<input type="checkbox"/>
Other unit	Steel, nonferrous and metal	<input type="checkbox"/>
	Machinery and shipbuilding	<input type="checkbox"/>
	Electrical equipment	<input checked="" type="checkbox"/>
	Automobile & transport machine	<input type="checkbox"/>
	Fabric, pulp and paper	<input type="checkbox"/>
	Precision equipment	<input type="checkbox"/>
	Other manufacturing	<input type="checkbox"/>
	Construction	<input type="checkbox"/>
	Information & telecommunication	<input type="checkbox"/>
	Electricity and gas	<input type="checkbox"/>
	Chemical	<input type="checkbox"/>
	Service	<input type="checkbox"/>
	Pharmaceutical	<input type="checkbox"/>

**TARGET**

Industry	<input type="checkbox"/>
Enterprise	<input type="checkbox"/>
Enterprise	
Other unit	

Company name

Company code

Applicant code

Search

FIG. 34

ENTERPRISE VALUE EVALUATION  
OUTPUT CONDITION SETTING

SELECT CONDITIONS IN THE WINDOWS BELLOW

BACK

SET

MAP POSITION

1 map	<input checked="" type="checkbox"/>
2 maps	<input type="checkbox"/>
1 data sheet	<input type="checkbox"/>
2 data sheets	<input type="checkbox"/>
1 map with data	<input type="checkbox"/>
2 maps with data	<input type="checkbox"/>
1 map with comment	<input type="checkbox"/>
2 maps with comment	<input type="checkbox"/>
1 map with data and comment	<input type="checkbox"/>
2 maps with data and comment	<input type="checkbox"/>

OUTPUT DATA

Patent application productivity	none	<input type="checkbox"/>
Examination request productivity	top 5	<input type="checkbox"/>
Patent registration productivity	top 10	<input type="checkbox"/>
COMMENT	top 15	<input type="checkbox"/>
(free entry)	top 20	<input checked="" type="checkbox"/>
	numerical input	<input type="checkbox"/>

•

FIG. 36

ENTERPRISE VALUE EVALUATION MENU (2)

BACK

SET

SELECT INDEXES IN THE WINDOWS BELOW

BUSINESS, PROFIT AND  
MARKET VALUE

(A) Investment index

☐

(B) Management-finance  
analysis index

☐

(C) Profit related index

☒

(D) Excess profit analysis  
index

☐

(M) Market evaluation  
related index

☐

(PE) Patent profitability  
index

☐

R&D AND PATENT

☐ Facility investment amount

☐ R&D cost

☒ Investment trend index

(PT) Patent acquisition  
(registration) related index

☐

(PP) Patent productivity  
index

☐

(PS) Patent stock related  
index

☐

PATENT PORTFOLIO

☐ (PAP) Patent application  
portfolio analysis

☐ (PKA) Characteristic  
keyword list

☐ (PSI) Patent similarity  
analysis

FIG. 37

ENTERPRISE VALUE EVALUATION MENU (2)			
SELECT INDEXES IN THE WINDOWS BELOW			
BUSINESS, PROFIT AND MARKET VALUE	R&D AND PATENT	PATENT PORTFOLIO	
<input type="checkbox"/> (A) Investment index	<input type="checkbox"/> (R) Research and development related index	<input type="checkbox"/> (PAP) Patent application portfolio analysis	<input type="checkbox"/>
<input type="checkbox"/> (B) Management-finance analysis index	<input checked="" type="checkbox"/> (PA) Patent application related index	<input type="checkbox"/> (PKA) Characteristic keyword list	<input type="checkbox"/>
<input type="checkbox"/> (C) Profit related index	<input type="checkbox"/> (PB) Examination request related index	<input type="checkbox"/> (PSI) Patent similarity analysis	<input type="checkbox"/>
<input type="checkbox"/> (D) Excess profit analysis index	<input type="checkbox"/> (PT) Patent acquisition (registration) related index		
<input type="checkbox"/> (M) Market evaluation related index	<input type="checkbox"/> (PP) Patent productivity index		
<input type="checkbox"/> (PE) Patent profitability index	<input type="checkbox"/> (PS) Patent stock related index		

FIG. 38

ENTERPRISE VALUE EVALUATION MENU (3)			
SELECT INDEXES IN THE WINDOWS BELOW			
BUSINESS, PROFIT AND MARKET VALUE		R&D AND PATENT	PATENT PORTFOLIO
(A) Investment index	<input type="checkbox"/>	(R) Research and development related index	<input type="checkbox"/> (PAP) Patent application portfolio analysis
(B) Management-finance analysis index	<input type="checkbox"/>	(PA) Patent application related index	<input type="checkbox"/> Number of patent applications
(C) Profit related index	<input type="checkbox"/>	(PB) Examination request related index	<input checked="" type="checkbox"/> Number of claims filed
(D) Excess profit analysis index	<input type="checkbox"/>	(PT) Patent acquisition (registration) related index	<input type="checkbox"/> Number of claims per application
(M) Market evaluation related index	<input type="checkbox"/>	(PP) Patent productivity index	<input type="checkbox"/> Number of applications per inventor
(PE) Patent profitability index	<input type="checkbox"/>	(PS) Patent stock related index	<input type="checkbox"/> Number of claims filed per inventor
			<input type="checkbox"/> Number of joint applications
			<input type="checkbox"/> Ratio of joint applications
			<input type="checkbox"/> Joint applicants
			<input type="checkbox"/> Total number of applications

BACK
SET